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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,617	05/24/2001	Michio Ichimura	766.52	3220

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EXAMINER	
GAMETT, DANIEL C	
ART UNIT	PAPER NUMBER
1647	

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/856,617	ICHIMURA ET AL.	
	Examiner	Art Unit	
	Daniel C. Gamett	1647	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 May 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-40* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention corresponding to a single specific amino acid sequence and DNA sequence encoding that amino acid sequence to which the claims must be restricted.

Groups I-IV, claim(s) 1,2,12, and 21, each in part, drawn to a polypeptide comprising an amino acid sequence selected from SEQ ID NOS: 10-12, 13, 14, or 15-16, respectively, a method of producing said polypeptide by expressing a recombinant DNA comprising sequences represented by one of SEQ ID NOS: 2-4, 5, 6, or 7-8, respectively, and a method of using said polypeptide to screen compounds that inhibit binding of a polypeptide to JNK3.

Groups V-VIII, claim(s) 3-7, 13, and 14, each in part, drawn to a DNA represented by one of SEQ ID NOS: 2-4, 5, 6, or 7-8, respectively, and oligonucleotides derived therefrom.

Groups IX-XII, claims 8-11 and 40, each in part, drawn to a transformant comprising a recombinant DNA, which comprises DNA represented by one of SEQ ID NOS: 2-4, 5, 6, or 7-8, respectively.

Groups XIII-XVI, claim(s) 15, drawn to a method for detecting mRNA encoding the polypeptide comprising an amino acid sequence represented by SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively, said method comprising using an oligonucleotide comprising a sequence identical to continuous 5-60 bases of one of SEQ ID NOS: 2-4, 5, 6, or 7-8, respectively, an oligonucleotide complementary to said oligonucleotide, or an analogue of said oligonucleotide.

Groups XVII-XX, claim(s) 16 in part, drawn to a method for inhibiting expression of the polypeptide comprising an amino acid sequence selected from SEQ ID NOS: 10-12, 13, 14, or 15-16, respectively, said method comprising using an oligonucleotide comprising a sequence

identical to continuous 5-60 bases of one of SEQ ID NOS: 2-4, 5, 6, or 7-8, respectively, an oligonucleotide complementary to said oligonucleotide, or an analogue of said oligonucleotide.

Groups XXI-XXIV, claim(s) 17 and 20, each in part, drawn to an antibody that recognizes a polypeptide comprising an amino acid sequence represented by SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively.

Groups XXV-XXVIII, claim(s) 18 and 19, each in part, drawn to methods of immunological detection using an antibody that recognizes a polypeptide comprising an amino acid sequence represented by SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively.

Groups XXIX-XXXII, claim(s) 22 in part, drawn to a method of screening a compound that inhibits phosphorylation of a polypeptide by activated JNK3, said polypeptide comprising an amino acid sequence selected from SEQ ID NOS: 10-12, 13, 14, or 15-16, respectively.

Groups XXXIII-XXXVI, claim(s) 23 and 28, each in part, drawn to a compound that inhibits binding of a polypeptide to JNK3, said polypeptide comprising an amino acid sequence represented by SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively, or variants thereof.

Groups XXXVII-XL, claim(s) 23 and 29, each in part, drawn to a compound that inhibits phosphorylation of a polypeptide by activated JNK3, said polypeptide comprising an amino acid sequence represented by SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively, or variants thereof.

Groups XLI-XLIV, claim(s) 24 and 25, each in part, drawn to a method of screening a compound capable of changing expression of mRNA from a gene encoding a polypeptide, said polypeptide comprising an amino acid sequence represented by SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively.

Groups XLV-XLVIII, claim(s) 26 drawn to a method of screening a compound capable of changing expression immunologically detectable protein from a gene encoding a polypeptide, said polypeptide comprising an amino acid sequence represented by SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively.

Groups XLIX-LII, claim(s) 27 in part, drawn to a compound capable of changing expression of mRNA from a gene encoding a polypeptide, said polypeptide comprising an amino acid sequence represented by SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively.

Groups LIII-LVI, claim(s) 30 and 31, each in part, drawn to an agent for preventing or treating neurodegenerative diseases, amyotrophic diseases, ischemic diseases, brain damage due to stroke, schizophrenia, depression, epilepsy, or immunological and inflammatory diseases, comprising a polypeptide comprising an amino acid sequence selected from SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively.

Groups LVII-LX, claim(s) 32 and 33, each in part, drawn to an agent for preventing or treating neurodegenerative diseases, amyotrophic diseases, ischemic diseases, brain damage due to stroke, schizophrenia, depression, epilepsy, or immunological and inflammatory diseases, comprising an oligonucleotide comprising a sequence identical to continuous 5-60 bases of one of SEQ ID NOS: 2-4, 5, 6, or 7-8, respectively, an oligonucleotide complementary to said oligonucleotide, or an analogue of said oligonucleotide.

Groups LXI-LXIV, claim(s) 32 and 33, each in part, drawn to an agent for preventing or treating neurodegenerative diseases, amyotrophic diseases, ischemic diseases, brain damage due to stroke, schizophrenia, depression, epilepsy, or immunological and inflammatory diseases, comprising an antibody that recognizes a polypeptide comprising an amino acid sequence selected from SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively.

Groups LXV-LXVIII, claim(s) 36 in part, drawn to a promoter DNA which controls transcription of a gene encoding a polypeptide comprising an amino acid sequence selected from SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively.

Groups LXIX-LXXII, claim(s) 37 and 38, each in part, drawn to a method of screening a compound capable of changing efficiency of transcription from a promoter DNA which controls transcription of a gene encoding a polypeptide comprising an amino acid sequence selected from SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively.

Groups LXXIII-LXXVI, claim(s) 39 in part, drawn to a compound capable of changing efficiency of transcription from a promoter DNA which controls transcription of a gene encoding a polypeptide comprising an amino acid sequence selected from SEQ ID NOS: 9-12, 13, 14, or 15-16, respectively.

2. The inventions listed as Groups I-LXXVI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

3. The nucleotides and polypeptides recited in claims 1-40 represent four distinct groups: (*1*) SEQ ID NOS: 1-4, which are splice variants of a single gene and their corresponding polypeptides represented by SEQ ID NOS: 9-12, (*2*) SEQ ID NO: 5 and its corresponding polypeptide represented by SEQ ID NO: 13, (*3*) SEQ ID NO: 6 and its corresponding polypeptide represented by SEQ ID NO: 14, and (*4*) SEQ ID NOS: 7 and 8 and their corresponding polypeptides represented by SEQ ID NO: 15 and 16. The only disclosed feature shared by the four groups is that they were discovered in the same two-hybrid screen for binding partners for JNK3.These groups represent different gene products that are special technical features. Each sequence group would each need to be searched separately and, if patentable, would support separate patents. As all four groups of sequences are claimed in claim 1, Groups I-IV represent a first claimed product (a polypeptide) and the first claimed methods of making and using said polypeptide. The remaining sets of groups recite special technical features as follows.

Groups V-VIII recite the special technical feature, a DNA, which is not required by the methods of Groups XIII-XX, XXV-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-IV, IX-XII, XXI-XXIV, XXXIII-XL, and XLIX-LXVIII.

Groups IX-XII recite the special technical feature, a transformant, which is not required by the methods of Groups XIII-XX, XXV-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-VIII, XXI-XXIV, XXXIII-XL, and XLIX-LXVIII.

Groups XIII-XVI recite the special technical feature, a method for detecting mRNA, which is not required by the methods of Groups XVII-XX, XXV-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XL, and XLIX-LXVIII.

Groups XVII-XX recite the special technical feature, method for inhibiting expression of a polypeptide, which is not required by the methods of Groups XIII-XVI, XXV-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XL, and XLIX-LXVIII.

Groups XXI-XXIV recite the special technical feature, an antibody that recognizes a polypeptide, which is not required by the methods of Groups XIII-XX, XXV-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXXIII-XL, and XLIX-LXVIII.

Groups XXV-XXVIII recite the special technical feature, methods of immunological detection, which is not required by the methods of Groups XIII-XX, XXIX-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XL, and XLIX-LXVIII.

Groups XXIX-XXXII recite the special technical feature, a method of screening a compound that inhibits phosphorylation of a polypeptide by activated JNK3, which is not required by the methods of Groups XIII-XX, XXV-XXVIII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XL, and XLIX-LXVIII.

Groups XXXIII-XXXVI recite the special technical feature, a compound that inhibits binding of a polypeptide to JNK3, which is not required by the methods of Groups XIII-XX, XXV-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXVII-XL, and XLIX-LXVIII.

Groups XXXVII-XL recites the special technical feature, an agent that inhibits phosphorylation of a polypeptide by activated JNK3, which is not required by the methods of Groups XIII-XX, XXV-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XXXVI, and XLIX-LXVIII.

Groups XLI-XLIV recite the special technical feature, a method of screening a compound capable of changing expression of mRNA from a gene, which is not required by the methods of

Groups XIII-XX, XXV-XXXII, XLV-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XL, and XLIX-LXVIII.

Groups XLV-XLVIII recite the special technical feature, a compound capable of changing expression of protein from a gene, which is not required by the methods of Groups XIII-XX, XXV-XXXII, XLI-XLIV, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XL, and XLIX-LXIV.

Groups XLIX-LII recite the special technical feature, a compound capable of changing expression of mRNA from a gene, which is not required by the methods of Groups XIII-XX, XXV-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XL, and LIII-LXVIII.

Groups LIII-LVI recite the special technical feature, an agent for preventing or treating neurodegenerative diseases, amyotrophic diseases, ischemic diseases, brain damage due to stroke, schizophrenia, depression, epilepsy, or immunological and inflammatory diseases, comprising a polypeptide, which is not required by the methods of Groups XIII-XX, XXV-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XL, XLIX-LII, and LVII-LXVIII.

Groups LVII-LX recite the special technical feature, an agent for preventing or treating neurodegenerative diseases, amyotrophic diseases, ischemic diseases, brain damage due to stroke, schizophrenia, depression, epilepsy, or immunological and inflammatory diseases, comprising an oligonucleotide, which is not required by the methods of Groups XIII-XX, XXV-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XL, XLIX-LXVI, and LXI-LXVIII.

Groups LXI-LXIV recite the special technical feature, an agent for preventing or treating neurodegenerative diseases, amyotrophic diseases, ischemic diseases, brain damage due to stroke, schizophrenia, depression, epilepsy, or immunological and inflammatory diseases, comprising an antibody, which is not required by the methods of Groups XIII-XX, XXV-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XL, XLIX-LX, and LXV-LXVIII.

Groups LXV-LXVIII recite the special technical feature, a promoter DNA which controls transcription of a gene, which is not required by the methods of Groups XIII-XX, XXV-XXXII, XLI-XLVIII, LXIX-LXXII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XL, and XLIX-LXIV.

Groups LXIX-LXXII recite the special technical feature, a method of screening a compound capable of changing efficiency of transcription from a promoter DNA, which is not required by the methods of Groups XIII-XX, XXV-XXXII, XLI-XLVIII, or the products of Groups I-XII, XXI-XXIV, XXXIII-XL, and XLIX-LXVIII.

4. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Diseases or condition to be treated or prevented:

a. neurodegenerative diseases,

b. amyotrophic diseases,

c. ischemic diseases,

d. brain damage due to stroke,

e. schizophrenia,

f. depression,

g. epilepsy,

h. immunological and inflammatory diseases

IF APPLICANT ELECTS ANY OF GROUPS XLV-LVI, Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

5. The claims are deemed to correspond to the species listed above in the following manner:

Claims 30-35.

The following claim(s) are generic: Claims 30-35.

6. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Each disease or condition is a special technical feature not shared by any other disease or condition.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel C Gamett, Ph.D., whose telephone number is 571 272 1853. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback can be reached on 571 272 0961. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DCG
Art Unit 1647
20 June 2005

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